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ABSTRACT

Presented is the fourth annual report of a project concerned with humanistic talent (defined as the ability to reason incisively and well with complex social, moral, and political problems) in gifted adolescent students. Activities of the past year in the areas of counseling services, graduate training, and research activities are reviewed. Explained is the decision to cut back on counseling services due to inefficient use of staff time and the small number of persons being served. Described in the section on graduate training are the theses of two students in educational administration, both studies being related to the prediction of academic performance. Research activities are summarized and future activities including data analyses and writing, information dissemination, a writing seminar for gifted adolescents, research on the definition of noncognitive determinants of humanistic reasoning, analysis of indices of future productiveness of gifted children, and a book length report of the entire project are outlined. Appended are a bibliography of 17 publications of the study from 1972 to 1976, a summary of the papers, and individual summaries of four papers on the subjects of quantitative giftedness in early adolescence, verbal giftedness and humanistic talent, educating humanistic talent, and the development of legal reasoning in verbally gifted children, respectively. An article by Joseph Adelson titled "Discussion of Papers on Humanistic Talent" is included. (IM)

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Study of Verbally Gifted Youth

Fourth Annual Report to the Spencer Foundation

1 September 1975 - 1 September 1976

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Acknowledgements

We would like to express our gratitude to the many gifted young people who have continued to cooperate in the work of this project, and particularly to those who have kept us informed of their academic progress and other interests and activities. We regret the loss, due to natural causes, (graduation), of three staff members during this fourth year. Sandra Bond, Peter McGinn and Mary Viermatein contributed substantially to the work of the project, and we express our thanks to each of them. Mr. Eric Cheyfitz conducted the creative writing seminar throughout the academic year, as well as the more intensive writing course during the summer. He was an imaginative and effective teacher, and we appreciate his unstinting efforts and contagious enthusiasm.

TABLE OF CONTENTS

	Page
Acknowledgements	i
Table of Contents	ii
I. Introduction	1
II. Counseling Services 1975-1976	2
III. Graduate Training	4
IV. Research Activities	7
V. Future Activities	9
Appendix A - Publications of the Study of Verbally Gifted Youth, 1972-1976	12
Appendix B - Outlines of papers presented at EPA Symposium, The Nature and Nurture of Humanistic Talent	14
Appendix C - Legal Socialization by Robert Hogan and Carol Mills	32
Appendix D - Traits, Tests and Personality Research by Robert Hogan, Clinton DeSoto and Cecelia Solano	57
Appendix E - A Measure of Interpersonal Effectiveness by Mary C. Vierstein and Robert Hogan	81

I. Introduction

During the first three years of this project a good deal of time was given over to such practical issues as subject recruitment, data collection, and program administration. In this past year we have been able to devote proportionately more time to the research and analyses we originally envisioned as the core of the project. It is entirely too easy for projects such as this to lapse into a form of boosterism for the talented; in addition, the research literature in this area is not particularly impressive. Consequently, we have felt rather keenly the obligation to get on with our research.

A number of trends are becoming apparent in our data and we feel we have some important findings to report. Unfortunately, the medium of journal communication does not lend itself to a synoptic view. Our annual reports come close to providing such a view, but they have a rather restricted (although enthusiastic) circulation. Thus it is becoming increasingly apparent that a book length report of our efforts is necessary.

This annual report will not be an adequately integrated summary of our recent work. It is rather an interim and *in seriatim* account of our activities over the past year. The integrated summary will come next. This report is in essentially four parts. The first describes our counseling activities over the past year. The second part summarizes the two dissertations completed in our project this past year. The next section recounts our non-dissertation research efforts. The report closes with an account of the activities that we have projected for 1976-1977.

II. Counseling Services 1975-1976

The counseling services that we provide to the gifted are largely on a demand basis in the form of a more or less constant stream of letters and phone calls; as a result, that which is reported here is essentially the tip of the iceberg.

We have retained contact with our earlier students, some of whom have moved as far as the west coast, by means of our newsletter. This year one edition was sent out in December, the second in April. We have dealt with so many youngsters now that we can't afford to contact everyone on our mailing list. Thus, each edition of the newsletter goes out to around 250 youngsters-students we regard as having special potential.

In addition to this individual counseling, we were asked and made presentations at the Wye Institute on Maryland's eastern shore on a couple of occasions, and in Ann Arundel, Harford, and Baltimore counties during the past year. These are typically parent groups seeking information/guidance regarding programs for the gifted.

Our most extensive counseling effort, however, was our writing program, a continuing service we have offered to 12 youngsters who were self-selected from among the winners in the 1975 talent search. These students have participated in two intensive summer workshops and continued to meet once each month during the 75-76 academic year. The instructors are published writers and advanced graduate students at the Johns Hopkins University Humanities Center and they, in conjunction with our staff, have developed a curriculum for this creative writing program. The students have unanimously requested that the program continue, and we have arranged to offer it through 1976-77 under the

joint auspices of the Humanities Center and our projec Impressive improvement in critical acumen and in technical skills are apparent over this long term program and we see distinct individual styles emerging--advances which are not discernable, and perhaps not possible, in a single short course.

The response to our counseling activities indicates that it is meeting a considerable need on the part of parents and their children. It has been gratifying to be able to provide such a service and have a feeling of making a useful contribution to one's community.

Having said this, it still seems from a realistic viewpoint that these counseling activities are an inefficient use of staff time and foundation resources. This is so because relative to the costs, only a small number of persons are served, and the overwhelming percentage of them are people who could easily afford to pay for such services. On the other hand, despite our best intentions to locate and counsel bright working class students, our efforts in this regard were largely unsuccessful. Our staff ended with the feeling that although our counseling program made us feel good, and provided a needed service, from a larger perspective it amounted to welfare for the over-advantaged.

Our recommendation for the future would be that this counseling support be directed at a level one step removed from service to individuals. That is, counseling programs for the gifted might be most effectively aimed at teacher training--how to spot and encourage unusual talent--and raising the consciousness of administrators. Progams such as that run by Lynn Fox in Baltimore seem to be the proper way to go about providing this sort of counseling service for the gifted.

III. Graduate Training

In contrast with our counseling activities the graduate training portion of our project comes much closer to reflecting the overall mission of the Spencer Foundation. Peter McGinn, the first of our students to finish, applied for several positions in public school administration and is now working as an educational consultant in the U.S. Senate. He plans a career in educational administration rather than academics; his model seems to be John Gardner rather than Jerome Bruner.

McGinn's dissertation is a nice blend of basic and applied research framed in the general context of an evaluation of the Myers-Briggs Type Indicator (MBTI) as a counseling device for talented youth. The MBTI has a number of features that make it attractive for these purposes: the content of the items is innocuous; it is easy to administer, score, and interpret; the interpretations are never demeaning or degrading, rather, they focus on positive aspects of psychic and social functioning; finally, the test has been shown repeatedly to predict to aspects of creative and/or distinctive performance.

McGinn's study proceeded in three phases. In the first he evaluated the usefulness of type descriptions as a means of conveying information about personality. Personality assessment normally proceeds in terms of trait description; people are requested to describe, and are taught to think about, themselves in terms of trait categories. He determined that young people could use type classifications for self-descriptive purposes with about the same degree of reliability that they could use trait self-descriptions. Since the MBTI presents its results in terms of type categories, this is an essential piece of information to have before using the test.

The second part of Mr. McGinn's dissertation investigated the relationship between the California Psychological Inventory, (CPI), probably the most carefully developed and standardized personality test now available, and the MBTI. This analysis was very interesting in pointing out the strengths and weaknesses of both tests as counseling aids. With regard to the CPI, a uniformly elevated profile on this complex test represents a single type on the MBTI; this suggests that the item pool of the MBTI encompasses a wider variety of personality types than does the CPI. Conversely, there is nothing on the MBTI corresponding to the social maturity and academic achievement scales on the CPI, yet diligence, responsibility, and achievement motivation are vital pieces of information for a school counselor to have. This suggests then that counselors would want to supplement the MBTI with indices of socialization and academic motivation.

The third portion of McGinn's thesis work was an evaluation of the validity of two strategies for predicting academic performance: a standard linear regression equation vs. actuarial forecasting based on type categories. These results were inconclusive and little more need be said here about this complex topic.

Like Peter McGinn, Mary Viernstein,the second student to receive a Ph. D. on this project, plans a career in educational administration; it seems likely that she will become an Associate Dean of Students at Towson State College in Maryland, where she will also work with the counseling center. Her dissertation represents an attempt to formalize the results of our earlier efforts at selecting students for our program. We were concerned with finding the youngsters with the greatest potential for contributing to a significant area of scholarship other than mathematics and physical science--e.g., law, philosophy,

the social sciences. A review of our empirical data suggested that high level accomplishment in these "verbal" (or as we have come to regard them, "humanistic") disciplines is a function of three broad talents: intelligence, originality, and interpersonal effectiveness.

The rationale for this simple, three-variable model of achievement is straightforward. High level accomplishment seems to require the intellectual ability to work on complex problems, the originality to generate novel as opposed to merely adequate solutions to these problems, and the social competence necessary to put these solutions into effect.

Mary Viernstein's dissertation tested this model directly. She used as indices of intelligence and originality the Intellectence and Origence scales from Gough's Adjective Check List that were developed by George Welsh at the University of North Carolina. She had to develop her own measure of Interpersonal Effectiveness, also scorable from the Adjective Check List. For criterion variables she used a composite of self-, peer-, and staff-ratings.

Her findings were complex, but can be summarized in two parts. First, the new scale for Interpersonal Effectiveness seemed to work very well, and was indeed independent of the scales for Origence and Intellectence. Second, the model of high level achievement was only partially supported. Intellectence and Interpersonal Effectiveness were moderately related to the criteria, Origence was not. Perhaps the most signigicant outcome of this dissertation is the development of the Interpersonal Effectiveness scale, a measure that will have considerable utility as a counseling device.

lv. Research Activities

As noted in the introduction, this was the year in which we moved the research portion of our project into high gear. Perhaps the most visible manifestation of this is the series of papers that we presented at the 1976 meeting of the Eastern Psychological Association in April. The papers were part of a single symposium entitled "The Nature and Nurture of Humanistic Talent". The discussant was Professor Joseph Adelson, the distinguished developmental psychologist from the University of Michigan, who has published widely in areas of immediate concern to our project. The symposium is summarized, and Professor Adelson's comments are reproduced in Appendix B. Professor Adelson's remarks in particular make very lively reading.

Three other papers emanating from this project are worth summarizing (Full length versions of all papers may be obtained from Professor Robert Hogan). The first of these, "Legal Socialization" (Human Development, 1976, see Appendix C), offers a model for understanding how children and adolescents come to adopt their attitudes toward the law. Using this model, the paper then speculates on the socio-psychological conditions that must obtain in a culture before the law can be used as an instrument of social reform. The paper concludes by noting that the socio-psychological climate in America today is probably unfavorable in this regard.

The second paper, "Traits, Tests, and Personality Research" (submitted to the American Psychologist, see Appendix D), represents an attempt to counter the prevailing prejudice within academic psychology against personality tests. Since the data base of our Spencer project largely depends on test scores, this prejudice indirectly challenges the validity of our research on methodological grounds. The paper attempts to summarize the major themes of the anti-

test movement, and then to show that each of these criticisms, taken in turn, is ill-founded.

The third and most recent paper describes the development of a scale to measure Interpersonal Effectiveness (See Appendix E). The scale is brief, easy to administer, has adequate psychometric properties, and good convergent validity. This measure should prove very useful as a device for assessing the effects of counseling programs designed to improve social functioning.

These three papers capture the flavor of our most recent work. A more complete picture of our research effort can be obtained by reviewing our bibliography--Appendix A.

V. Future Activities

In the year 1976-1977 we will cut still further back on our counseling activities and devote even more time to data analyses and writing. We will of course continue to respond to written and telephone requests for information about education opportunities for gifted students. In addition, we will sponsor a writing seminar for 12 to 14 youngsters during the year. But our primary energies will be put into research and writing.

Our research efforts in 1976-77 will be directed at four separate topics. Perhaps the biggests and most important will be Steve Daurio's dissertation, a replication, extention, and cross-validation of the paper outlined in Appendix B. In brief the project will entail an attempt to define the non-cognitive determinants of mature socio-political reasoning. It is apparent that intelligence psychometrically defined is a major compenent of this form of reasoning. But it is equally apparent that intelligence accounts for less than half the variance in scores for mature socio-political thinking. Our earlier research has furnished us with some clues as to what factors might be involved; Mr. Daurio's dissertation should allow a much more precise determination of these factors. The dissertation will also examine the usefulness of the distinction between concrete and abstract thinking that always occurs in this type research. Finally, the dissertation will examine the usefulness of a projective measure of socio-political reasoning as a method for identifying humanistic talent in adolescence. This dissertation is the keystone project in our research program.

We have hired two students for work on the final year of the project. The first of these, Carol Mills, will spend the year analyzing an interesting anomaly in our data--many of our boys receive relatively high scores on the Femininity scale of the California Psychological Inventory. The Femininity scale is valid, reliable, and known to predict psychological femininity. Yet these same boys display no signs of having adopted cross-sex identities; they play lacrosse, football, etc., and seem appropriately masculine. Ms. Mills will attempt to determine the reason for their elevated Femininity scores through various item analyses, and then evaluate this information in terms of its consequences for predicting high level achievement.

The second of our new students, Wayne Bohannon, will be working on an equally interesting problem--the personality correlates of non-academic achievement. One goal of this project was to identify youngsters who were not merely bright, but who also seemed likely to be productive as adults. To date the best predictor of this potential is biographical materials; i.e., the best predictor of future behavior is past behavior. But many of these biographical indices of early achievement represent extremely rare events, often tied to social circumstance. A personality measure empirically keyed to biographical indicators would be very useful. It would have better statistical properties than a scale composed of biographical items, and it would minimize the effects of social class on scores. Such a scale would not only be useful in a pragmatic way, but it would also facilitate investigation of the motivational dynamics of early achievement.

The final project for 1976-77 is a book length report of our work on this grant. The book will be the vehicle for presenting an integrated summary of our findings and conclusions. The major points will include discussions of the nature of intelligence broadly defined, the nature of socio-political intelligence, methods for its assessment and training and

a review of our more interesting specific research findings. This would include our study of academic achievement, math-verbal differences, and personality correlates of mature socio-political reasoning. Several publishers have expressed interest in the book, and it seems likely to make a useful contribution to our understanding of the nature of human giftedness.

Appendix A

Publications of the Study of Verbally Gifted Youth, 1972-1976

Daurio, S. P., & Webb, R. A. Formal operations in very bright 8 to 14-year olds. Paper presented at the annual meeting of the Society for Research in Child Development, Denver, 1975.

Daurio, S. P., & Hogan, R. The development of legal reasoning in gifted adolescents. Submitted to Child Development.

Garvey, C. Play with language. In D. Harvey and B. Tizard (Eds.), The biology of play. London: Heinemann (in press).

Hogan, R. Intellectual giftedness in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology. New York: Wiley (in preparation).

Hogan, R., & Mills, C. Legal socialization. Human Development (in press).

Hogan, R., DeSoto, C. B., & Solano, C. Traits, tests, and personality research. Submitted to American Psychologist.

Hogan, R. Vierstein, M. C., McGinn, P.V., Daurio, S., & Johannon, W. Verbal giftedness and socio-political intelligence: Terman revisited. Journal of Youth and Adolescence (in press).

Hogan, R., and the Spencer Project Staff. The indentification and development of socio-political intelligence (in preparation).

Hogan, R., & Weiss, D. S. Personality correlates of superior academic achievement. Journal of Counseling Psychology, 1974, 21, 144-149.

McGinn, P. V. Verbally gifted youth: Selection and description. In D. P. Keating (Ed.), Intellectual talent: Research and development. Baltimore: Johns Hopkins University Press, 1976.

McGinn, P. V. An evaluation of the Myers-Briggs Type Indicator as a tool for understanding the personality and behavior of talented adolescents. Unpublished doctoral dissertation. Baltimore: The Johns Hopkins University, 1976.

McGinn, P. V., Viernstein, M. C., & Hogan, R. Fostering the intellectual development of verbally gifted adolescents. Submitted to Journal of Youth and Adolescence.

Viernstein, M. C. A measure of interpersonal effectiveness. Submitted to Journal of Counseling Psychology.

Viernstein, M. C. Self-concept correlates of humanistic giftedness in adolescents. Unpublished doctoral dissertation. Baltimore: The Johns Hopkins University, 1976.

Viernstein, M. C., & Hogan, R. Parental personality factors and achievement motivation in talented adolescents. Journal of Youth and Adolescence, 1975, 4, 183-190.

Viernstein, M. C., McGinn, P. V., & Hogan, R. Personality correlates of differential verbal and mathematical ability in talented adolescents. Submitted to Journal of Youth and Adolescence.

Webb, R. A. Concrete and formal operations in very bright 6 to 11-year-olds. Human Development, 1974, 17, 292-300.

Appendix B

Symposium on the Nature and Nurture of Humanistic Talent

I. Summary of the Papers

The study of humanistic precocity at Johns Hopkins was inspired by Terman's original study of giftedness at Stanford. Terman defined giftedness globally in terms of high scores on the Stanford-Binet. We felt, however, that it was possible to distinguish various forms of intellectual talent within a group of very bright youngsters--in particular we were interested in the nature of humanistic talent, defined as the ability to think about complex social, moral, and political issues in a disciplined but sensible manner. We felt our project was of unusual practical importance in view of the degree to which mathematical and technical skills are rewarded by this society when it plainly needs enlightened and competent jurists, social planners, statesmen and politicians as much as it does rocket engineers and munitions experts.

Over the past three years we have reached a number of conclusions regarding the nature and nurture of humanistic talent by studying a large group of very bright 12-and 13-year olds. These findings can be summarized as follows. First, it is only moderately related to verbal intelligence. Second, it is not very well developed by age 13. Although our very bright youngsters could on the average talk about social and political problems at a high level of sophistication, they are in certain critical ways indistinguishable from 9-year olds in terms of their reasoning. Thus age confers something above and beyond IQ to the maturation of social reasoning.

Third, an intensive seven week seminar that emphasized a constant examination of a range of cultural and social dilemmas, in conjunction with training in creative problem solving, reliably increased scores on measures of vocabulary and divergent thinking, but had little impact on reasoning ability.

Fourth, if our staff ratings are considered the best single index of humanistic talent available, then it is clear that this ability is only poorly reflected in existing psychometric assessment devices. Using all the data collected in the first two years, humanistic talent seems to be function of an intellectual lifestyle, originality, and interpersonal competence. Data from the third year give some systematic support to this hypothesis. In very general terms, then, the humanistically gifted person seems able to formulate original solutions to complex problems, and has enough personal charm and charisma to generate the support necessary to put his ideas into effect.

II. The Personological Significance of Verbal and Quantitative Giftedness in Early Adolescence

This paper describes the personological correlates of verbal and quantitative ability in a sample of unusually talented adolescents.

The subjects were 12 or 13 year old boys chosen from a larger sample (N=346) who had scored in the upper two percent on a standardized measure of verbal or quantitative performance, and who had taken part in either a Verbal or Mathematical Talent Search. Verbal and quantitative ability were defined here in terms of scores on the Scholastic Aptitude Test (SAT).

Two comparisons were made. First, boys self-selected to the Mathematics Talent Search were compared with those self-selected to the Verbal Talent Search. This comparison revealed essentially no differences between the two groups in terms of their personalities. Thus, roughly the same distribution of personality types can be found within a group of junior mathematicians/scientists and a group of youngsters with a more literary orientation.

In the second comparison, each subject was assigned a different score by subtracting his SAT-M from his SAT-V score. These difference scores were then correlated with the Allport-Vernon-Lindzey Study of Values, the Myers-Briggs Type Indicator, the Barron-Welsh Art Scale, and the California Psychological Inventory.

A clear-cut pattern of results emerged that suggested that high verbal relative to quantitative abilities, whether the subject was self-selected to a mathematics or verbal talent search, has a distinctive set of personality correlates. Within this very able group a high verbal/math difference score reflected an original, thoughtful, sensitive, aesthetically inclined individual, a person who was intuitive and appreciative of ideas, but still responsible and dependable and possibly conventionally ambitious. This potential conventionality was offset by a genuine interest in ideas, a drive to work alone, and suspicions about the motives and intentions of others.

There are two conclusions to be drawn from this research. First, there are well-defined personality correlates of high verbal relative to math scores. Second, such persons appear to occur with equal frequency in all fields of endeavor; they are not concentrated in the humanities or disciplines associated with verbal skills.

III. Verbal Giftedness and Humanistic Talent

This study examines the relationship between verbal giftedness and humanistic talent--defined as the ability to reason incisively and well with complex social, moral, and political problems. The study is part of a general attempt to develop a more differentiated view of human talent.

The subjects were chosen from a larger sample (N=659) of participants in a Verbal Talent Search--12-or 13-year-olds who had scored at or above the 98th percentile on a standardized measure of verbal achievement. Fifty-eight students with the highest scores on the verbal portion of the SAT were invited to take part in a summer enrichment program.

These 58 very bright youngsters (SAT-V $\bar{X}$ =58[illegible]) were given a large battery of assessment devices including the CPI, the Myers-Briggs Type Indicator, and the Terman Concept Mastery Test. They then completed a seven week college level course at Johns Hopkins taught by our project staff. These students were then rated for humanistic potential by the staff. These ratings reflected our judgment of each student's intellectual maturity and ability to reach sound defensible conclusions when dealing with complex social and political issues. The reliability of these ratings averaged .70.

These 58 students were found to be bright, socially perceptive, and potentially creative. Nonetheless, there was considerable variation within

the group in terms of the ability to reason well, and only a small percentage of the group was able to do so. Moreover, none of the assessment variables was closely related to rated humanistic potential.

Humanistic talent has not been of concern to earlier test developers, and thus talent is not well mapped by existing assessment devices. Future research should rely more on behavior samples and less on existing measures. Humanistic talent is probably more a function of age, experience, and other biographical variables than it is of intelligence psychometrically defined.

IV. Educating Humanistic Talent

A model program was developed, designed to stimulate the development of humanistic reasoning ability. This paper, based on two years' experience with the program, evaluates its impact on the thinking of a group of unusually bright 12-and 13-year-olds.

The subjects were 21 male and 31 female 7th and 8th graders, selected on the basis of exceptional performance on the verbal portion of the SAT ($\bar{X}$ =580). They were part of an original group of over 1400 who took part in three large scale talent searches.

In the first year students were given a seven week college level course in either the social sciences or creative writing and a course in creative problem solving. Students in the second year received only a social science or creative writing course. In addition, students completed, before and after the seven week course, Terman's Concept Mastery Test (CMT), Mednick's Remote Associates Test (RAT), Guilford's Consequences Test, and a Semantic Differential designed to assess attitudes toward school. In addition, their class performance was closely monitored by the staff.

Pretest measures for both years were highly similar. Both years experienced a significant increase in CMT scores over the seven week period. RAT scores failed to improve significantly in either year. Scores on the Guilford Consequences Test improved significantly in the

first year but not the second. The consensus of the staff was that reasoning ability, as reflected orally and in writing, did not improve noticeably in either year. Attitudes toward school also remained unchanged.

In a group of unusually bright adolescents, convergent thinking, as reflected on the CMT, can be dramatically improved in a relatively short time. Divergent thinking, as reflected on Guilford's Consequences can also be markedly improved by means of systematic instruction in problem solving. On the other hand our overwhelming impression is that the actual reasoning ability of these unusually bright youngsters changed very little over the course of the summer. Data from the third year of the project now being analyzed will confirm or repudiate these clinical impressions. In the meantime, however, our feeling is that the feedback that accompanies life experience is the best single stimulus for improving one's ability to reason about complex moral and political problems.

V. The Development of Legal Reasoning in Verbally Gifted Children

This paper has two purposes: It compares the legal reasoning of bright and average children to determine the effects of intellectual precocity on such reasoning; and it examines age-related changes in legal reasoning within a highly gifted sample.

Thirty-eight white, middle class, and very bright (IQ>160) children ranging in age from 8 to 14 were studied. This included 25 boys and 13 girls.

Children were tested individually in their homes during a single five week period. Data were obtained through an interview using a legal reasoning problem originally developed by Joseph Adelson at Michigan. Interviews were tape recorded and later transcribed. Three raters scored each protocol for the categories used in Adelson's original research: abstract versus concrete reasoning; beneficial versus restrictive views of the law; amendment versus no amendment solutions; paternalism versus civil libertarianism; government's response to violations of the law; absolute versus pragmatic view of the law. Responses were then compared with Adelson's original results, and were examined for age trends within the sample itself.

The reliability of the ratings varied between .76 and .94, values that are quite respectable.

Adelson reported that the major shifts in an adolescent's view of law occur between 13 and 15. Our data indicate that for these highly gifted children the same shifts occur at 10½. Younger children's reasoning was more concrete. They viewed the law in exclusively restrictive terms, they were paternalistic rather than civil libertarian, and they were less likely to take a pragmatic view of the law--i.e., evaluate laws in terms of their practical consequences.

The age trends originally reported by Adelson were replicated here. Responses of the first four of the six scoring categories listed above varied significantly with age.

Three points about the foregoing should be noted. First, the pattern of Adelson's original findings was clearly replicated, suggesting that as legal reasoning matures it increasingly takes account of the complex and dialectical nature of social problems, and increasingly regards the law as a useful instrument for promoting social welfare. Second, replication of Adelson's findings with a younger but much brighter sample shows that precocity confers some advantage in reasoning about complex social problems. In two areas, however precocity made no difference--there was little variation across age in terms of how government should respond to violations of the law, and there was little variation with regard to suggested severity of law enforcement--13-year-olds were just as firm as 9-year-olds in recommending draconian measures for the treatment of malefactors. Third, even among the oldest and brightest subjects there were notable differences in reasoning ability.

Thus, an accurate statement of the relationship between intellectual precocity and legal reasoning ability suggests only that on the average verbally gifted children will demonstrate more mature responses to complex social problems than their less talented peers.

Discussion of papers on humanistic talent

by

Joseph Adelson
University of Michigan

Let me say that my first reaction on reading these papers was an uncanny fusion of déjà vu and nostalgia. It took me only a few minutes to recognize what had brought on this unexpected state of mind -- I remembered that I had myself been a gifted adolescent, and I imagine that I share this history with many of you in the audience. What is more, I remembered that as an adolescent I had been held captive in an institution devoted to the intellectual care and force feeding of other gifted adolescents -- an academically elite high school which devoted itself with a fierce single-mindedness to the production of an intelligentsia, and quite successfully, so far as one can tell. It was, let me tell you, a compelling experience. One entered the school with a certain breezy self-assurance, having been the apple of one's mother's eye, and within a few days was reduced to hysteria and depression, having suffered a quick and unpleasant education in humility, learning that there were a great many youngsters just like you, except a bit brighter, a bit more persevering, a bit more creative. It was, for better or for worse, the most significant educational experience I have endured, and I thought it might be of some value to organize at least some of my comments along autobiographical lines, trying to find some articulation between personal experience and the findings reported in this important research project.

Let me offer some examples. In a surprising number of instances I have been able to keep up with the later careers of my classmates. Among them I count the following: a radical sociologist and one of the intellectual founders of the New Left; the drama critic for a national news magazine; an avantgarde painter; a novelist; a death-of-God theologian; a Hollywood producer; an accountant; a developmental psychologist; a research entrepreneur in public health; a dean at a leading university; an experimental film-maker. In not a single instance is the ultimate outcome truly surprising. I would not want to argue that one could have predicted the precise particularities of vocation; nevertheless in each and every case I know about the continuities are most impressive. Consider my friend and classmate the radical sociologist--when I first met him, at the age of 14, he had already plotted out his career, which was to study with a well-known leftist political scientist, obtain a doctorate in political science, and establish himself as the next generation's Harold Laski. That is almost exactly what he did, though on the way he moved ever so slightly from political science to political sociology. He is now one of the seminal figures in New Left intellectual thought. In 1970 I received a phone call from him, the first time we had spoken to each other in 30 years. It turned out that he had been following my career as closely as I had been following his, and he asked me to consider applying for a position which had developed at his university. We began by exchanging pleasantries and reminiscences, but within five minutes found ourselves in a nasty political squabble, along quite the same lines, mutatis mutandis, we had argued 30 years earlier.

I have of course chosen the most striking example I have of continuity, a continuity in interest and style. But in every other case I have mentioned the pattern is essentially the same. The avantgarde painter I mentioned was, when I knew him as a boy, an avantgarde poet, though not a very good one; what was striking about his poetry was the wish to be avantgarde, the febrile icon-

oclasm which informed his attitude toward experience, and which finally found its proper culmination in painting. His closest friend was a boy who had a consuming interest in the arts, but no particular ambition or capacity to create. He is now a critic of drama, and of film, and on the occasion of his artist friend's most recent exhibition of paintings, wrote a most perceptive critique for Art in America.

The nostalgia that these papers awakened in me brought home the extraordinary continuity which informs most careers, perhaps especially among the gifted, and may force us to recognize that we have as yet no adequate theory of persistence. Our bias really is towards the more romantic, perhaps more apocalyptic modes of conflict, change, transformation, and renewal. Yet all the longitudinal findings we have, as from Jack Block, or from Livson and Peskin, or from the Offers, all of these suggest that we do better to concentrate upon continuity. My personal experiences lead me to venture that there are few surprises past the age of 15 and perhaps even earlier, at least among the gifted. I can think of no case in my personal acquaintance where one discovered, unexpectedly, a mathematical or musical or literary or scientific gift, or where the essential style of creative work was essentially changed--a craftsman remains a craftsman, the reckless improvisor improvises, the romantic declaims and postures, the classicist exposits or delineates. One is Samuel Johnson or Percy Shelley, one or the other, and the distinction, at least among the talented, seems to be both visible and unchangeable past a certain point. It may well be that the dividing line is to be found somewhere between early and middle adolescence.

Looking back, then, one is struck by the continuities in interests and style. On the other hand, the absolute level of achievement in later life seems not to be easily predictable from adolescent accomplishment, that is within a gifted group. The three or four boys I know of absolutely stunning intelligence seem not to have made much of a mark upon the world. The ones

who have were, as youngsters, distinguished by an intense absorption in the advanced ideas of the time, and in a particular realm of interest and showed a corresponding indifference to doing well in school. They did well enough to get by, but their energy was largely focused upon the cultivation of intellectual or aesthetic interests some of these quite rarefied. One of my classmates was, at the age of 15, engaged in a very close study of the work of James Joyce, including a word-for-word translation of Finnegan's Wake; another at the same age was trying to become an abstract painter, and was engrossed in a study of Kandinsky's work, which in 1940 was almost entirely unknown except among a handful of critics, artists, and collectors. These experiences lead me to support the views expressed in the paper by McGinn et al to the effect that many of the talented youngsters seem to show little exceptional promise for later achievement. I think that has been evident in all studies I know which have followed over time the careers of gifted youngsters. Past a certain level of intelligence, what seems to count are such things as drive and imagination. This observation is commonly made, yet we still seem to be doing little to understand more deeply the interactions between personality and talent as these ensue in achievement. The studies we have heard today give us a great many hints as to how we might proceed, though speaking as a clinician I would like to see more attention given to projective techniques, the interview, and the close study of biographical indices.

A third topic which personal experience leads me to is the role of education in the cultivation of talent. It is astonishing to reflect that we have almost no findings which tell us what kind of secondary education is most conducive to later achievement. In this area, we seem to be guided entirely by our biases, or by the prevailing winds of fashion, the most popular of which in the last decade holds that an unstructured, permissive milieu induces towards creativity. If my own experience is any guide, there is little reason to believe it. As I have indicated already, a surprisingly high propor-

tion of my high school classmates went on to careers involving creativity and innovation, and yet I cannot imagine a high school more stultifying than ours. There were no electives, none at all; there were almost no extra-curricular activities; the curriculum had absolutely no connection to the real world; much of the work consisted of memorization; discipline was strict and included corporal punishment now and again; and it all seemed to make very little difference. No one's spirit was crushed, no one's imagination throttled. To the contrary, one seemed to work out under these conditions a sort of internal arrangement whereby the skills which were learned so thoroughly and well, in writing, languages, mathematics, science, were used in the service of the imagination, and did not compete with imagination. A few days ago I came upon a very interesting paper by the economist Thomas Sowell, who has been studying that handful of black high schools which, earlier in this century, under the most discouraging circumstances, managed to educate much of the black elite. What Sowell finds is remarkably like what I remember from my own high school--an emphasis on discipline, a commitment to achievement, and intense dedication on the part of the teachers, an unflagging belief in excellence.

It should be clear that my own biases incline me towards a traditionalist position on secondary education--a position much out of favor these days--but I am quite prepared to recognize that we have little more than self-serving anecdotes to support any of our assumptions. For all we know, the gifted will thrive under most educational regimes--I don't think so myself, but the point is that we have little good evidence to argue for or against any particular theory of education for the gifted. And for what it is worth I think we may have given too much attention to the schools alone, which probably play a secondary role in the total ecology of achievement, the schools themselves reflecting some of the deeper values and perspectives of family, community, and nation.

My indulgence in autobiography has kept me at some distance from these papers. In the time I have left I would like to point to some aspects of this work I found of particular interest. The paper by Daurio and Hogan on political reasoning involves a most important methodological innovation, which I want to mention because its significance will probably be evident only to those specializing in che developmental study of thinking. What they have done is to fractionate the concrete-abstract dimension, and develop what seems to be a powerfully heuristic schema for tracking and analyzing the growth of complex thought. The concrete-abstract dimension has always seemed, intuitively, far too crude to describe the many changes in cognition which seem to take place at the adolescent watershed; but it has been one thing to sense this and quite another to disentangle the variables involved. The apparent shift from the achievement of impersonal, then generalistic, then metaphorical modes of discourse should be of particular help in understanding the fixations and regressions in thinking which characterize both simple-minded adult thinking and the progressive deterioration of thought under stress.

I also want to call attention to the potential importance of the research on what the authors call "practical intelligence". Let me say first that this is a most unfortunate term, connoting as it does a narrowly focussed utilitarian outlook, and that is clearly not what the authors have in mind in citing as examples Mill or Hume or Durkheim. I am also uneasy about the merely functional emphasis implied by some of the other examples given, since I don't believe that deans and college presidents are really what we ought to have in mind. What they <u>do</u> have in mind, I suspect, is the sort of social intelligence which allows one to look beyond the immediate consequences of action in the social and political sphere, to imagine that interweaving and concatenation of effects which follow upon any given social policy. My own studies of adolescent legal and political thought have indicated that the capacity to look ahead, to think conditionally <u>and</u> probabilistically, is extremely rare even among fairly bright

youngsters. It is easy enough to say--if A, then B, but quite rare to be able to think along these lines--if A then possibly B, but more likely C; or if A in conjunction with A^1, however, then possibly C, unless there is some influence from D, in which case we would have D. It is that hypothetico-deductive mode of thought, applied to social and political affairs, which is depressingly uncommon, not only among adolescents, but among many men and women of affa rs, including me and thee most of the time. I am excited to see that Professor Hogan and his colleagues have had the insight and wit to perceive the importance of this totally unexplored quality of mind.